



POWER WINDOW (REAR), REAR WIPER

SYSTEM OUTLINE

CURRENT ALWAYS FLOWS THROUGH **POWER** FUSE TO **TERMINAL 12** OF POWER WINDOW RELAY. WITH THE IGNITION SW TURNED ON, THE **WIPER** FUSE TO **TERMINAL 3** OF POWER WINDOW RELAY.

1. REAR POWER WINDOW MANUAL OPERATION (BACK WINDOW CONTROL SW)

WHEN THE BACK WINDOW CONTROL SW IS PUSHED TO THE UP SIDE (WITH THE IGNITION SW ON), AN "ON" SIGNAL IS INPUT FROM **TERMINAL 6** OF THE WINDOW SW TO **TERMINAL 11** OF THE POWER WINDOW RELAY. THUS, THE POWER WINDOW RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 12** OF THE POWER WINDOW RELAY FLOWS TO **TERMINAL 14** OF THE POWER WINDOW RELAY → **GROUND** SO THAT THE CURRENT TO BACK WINDOW MOTOR FLOWS FROM **TERMINAL 12** OF THE POWER WINDOW RELAY TO **TERMINAL 5** → **TERMINAL 1** OF THE BACK WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 15** OF THE POWER WINDOW RELAY → **TERMINAL 14** → **GROUND**. THIS CAUSES THE BACK WINDOW MOTOR TO ROTATE TOWARD THE UP SIDE AND THE WINDOW ASCENDS ONLY WHILE THE BACK WINDOW CONTROL SW IS BEING PUSHED.

TO LOWER THE WINDOW, THE SIGNAL INPUT FROM **TERMINAL 5** OF THE BACK WINDOW CONTROL SW TO **TERMINAL 5** OF THE POWER WINDOW RELAY CAUSES CURRENT TO THE BACK WINDOW MOTOR TO FLOW FROM **TERMINAL 12** OF THE POWER WINDOW RELAY → **TERMINAL 15** → **TERMINAL 2** OF THE BACK WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 5** OF THE POWER WINDOW RELAY → **TERMINAL 14** → **GROUND**, SO THE CURRENT FLOWS IN THE REVERSE DIRECTION TO MANUAL UP OPERATION AND CAUSES THE MOTOR TO ROTATE IN THE OPPOSITE DIRECTION, THUS LOWERING THE WINDOW.

WHEN THE BACK WINDOW LOCK SW IS PUSHED THE LOCK SIDE, THE GROUND CIRCUIT OF THE BACK WINDOW CONTROL SW BECOMES OPEN. THUS EVEN IF THE DRIVER OPERATES THE OPEN/CLOSE FUNCTION OF THE POWER WINDOW (REAR), THE POWER WINDOW (REAR) WILL NOT OPERATE BECAUSE THE POWER WINDOW RELAY DOES NOT RECEIVE THE ON SIGNAL AND THE POWER WINDOW RELAY DOES NOT OPERATE.

2. REAR POWER WINDOW MANUAL OPERATION (TAILGATE CONTROL SW)

WHEN THE TAILGATE CONTROL SW TO THE UP SIDE A SIGNAL IS INPUT TO **TERMINAL 2** OF THE POWER WINDOW RELAY FROM **TERMINAL 1** OF THE TAILGATE CONTROL SW. THIS ACTIVATES THE POWER WINDOW RELAY REGARDLESS OF WHETHER THE IGNITION SW IS ON OR OFF, AND THE CURRENT FLOWS FROM **TERMINAL 12** OF THE POWER WINDOW RELAY TO **TERMINAL 14**. SO THE CURRENT TO THE BACK WINDOW MOTOR FLOWS TO **TERMINAL 12** OF THE POWER WINDOW RELAY → **TERMINAL 5** → **TERMINAL 1** OF THE BACK WINDOW MOTOR → **TERMINAL 2** → **TERMINAL 15** OF THE POWER WINDOW RELAY → **TERMINAL 14** → **GROUND** AND CAUSES THE BACK WINDOW MOTOR TO ROTATE IN THE UP DIRECTION SO THE BACK WINDOW ASCENDS ONLY WHILE THE TAILGATE CONTROL SW IS BEING PUSHED TO LOWER THE WINDOW. THE ON SIGNAL OF THE TAILGATE CONTROL SW (ROTATE TO DOWN SIDE) IS INPUT TO **TERMINAL 10**, CAUSING THE CURRENT TO THE MOTOR TO FLOW TO **TERMINAL 12** OF THE POWER WINDOW RELAY → **TERMINAL 15** → **TERMINAL 2** OF THE BACK WINDOW MOTOR → **TERMINAL 1** → **TERMINAL 5** OF THE POWER WINDOW RELAY → **TERMINAL 14** → **GROUND**. THIS FLOW IS THE REVERSE OF MANUAL UP, SO THE MOTOR ROTATES IN THE REVERSE DIRECTION AND THE WINDOW IS LOWERED.

3. REAR WIPER OPERATION

CURRENT ALWAYS FLOWS THROUGH **POWER** FUSE TO **TERMINAL 12** OF THE POWER WINDOW RELAY. WITH THE IGNITION SW TURNED ON AND THE BACK DOOR WINDOW COMPLETELY CLOSED (BACK WINDOW LIMIT SW ON), WHEN THE REAR WIPER AND WASHER SW IS TURNED ON, THE CURRENT TO **TERMINAL 12** OF THE POWER WINDOW RELAY FLOWS FROM **TERMINAL 7** OF THE POWER WINDOW RELAY TO **TERMINAL 10** OF THE REAR WIPER AND WASHER SW → **TERMINAL 2** → **GROUND**. THUS THE POWER WINDOW RELAY ACTIVATES AND THE CURRENT FLOWS FROM **TERMINAL 12** OF THE POWER WINDOW RELAY → **TERMINAL 1** → **TERMINAL 3** OF THE REAR WIPER MOTOR → **TERMINAL 1** → **TERMINAL 9** OF THE POWER WINDOW RELAY → **TERMINAL 14** → **GROUND** AND OPERATES THE REAR WIPER TO THE UPPER LIMIT OF THE WIPING AREA. WHEN THE UPPER LIMIT OF THE WIPING AREA IS REACHED, THE POINT (CAM PLATE "P" POINT) ON THE WIPER MOTOR IS TURNED ON (IN THE CASE, "W" POINT OF CAM PLATE IS OFF), AND THE SIGNAL TO REVERSE THE REAR WIPER MOTOR IS INPUT TO **TERMINAL 8** OF THE POWER WINDOW RELAY. THE POWER WINDOW RELAY STOPS THE REAR WIPER MOTOR FOR ABOUT 0.1 SECONDS AND THE CURRENT FLOW FROM **TERMINAL 9** OF THE POWER WINDOW RELAY → **TERMINAL 1** OF REAR WIPER MOTOR → **TERMINAL 3** → **TERMINAL 2** OF THE POWER WINDOW RELAY → **TERMINAL 14** → **GROUND**. AS A RESULT, THE REAR WIPER MOTOR REVERSES AND STOPS THE REAR WIPER BEFORE THE RETRACTION POSITION. AT THAT TIME, THE POINT (CAM PLATE "W" POINT) ON THE REAR WIPER MOTOR IS TURNED ON (IN THIS CASE, "P" POINT OF CAM PLATE IS OFF), AND THE SIGNAL TO ROTATE THE MOTOR IS INPUT TO **TERMINAL 1** OF THE POWER WINDOW RELAY → **TERMINAL 3** OF THE REAR WIPER MOTOR → **TERMINAL 1** → **TERMINAL 9** OF THE POWER WINDOW RELAY → **TERMINAL 14** → **GROUND** AND THE REAR WIPER SW OFF, THE SIGNAL TO **TERMINAL 18** OF THE POWER WINDOW RELAY FROM "W" POINT OF CAM PLATE IS CANCELLED AND THE WIPING FUNCTION IS CONTINUED WHEN "P" POINT IS TURNED ON. THE REAR WIPER CONTINUES BEYOND THE REAR WIPER AREA TO THE RETRACTION POSITION. AT THAT TIME, "P" AND "W" POINTS ARE TURNED ON, THE POWER WINDOW RELAY STOPS OPERATING, AND THE CURRENT TO THE REAR WIPER IS CUT OFF TO CAM PLATE REAR WIPER OPERATION.

4. WASHER OPERATION

WITH THE IGNITION SW TURNED ON AND BACK WINDOW CLOSED COMPLETELY (BACK WINDOW LIMIT SW ON). WHEN THE REAR WIPER AND WASHER SW IS TURNED STRONGLY (REAR WASHER SW ON), CURRENT FLOWS FROM **TERMINAL 12** OR **3** OF THE POWER WINDOW RELAY TO **TERMINAL 4** → **TERMINAL 3** (USA), **5** (CANADA) OF REAR WASHER MOTOR → **TERMINAL 4** → **TERMINAL 12** OF THE REAR WIPER AND WASHER SW → **TERMINAL 2** → **GROUND** AND CAUSES THE REAR WINDOW WASHER EMITS A WATER SPRAY ONLY WHILE THE REAR WASHER SW IS TURNED. WHEN THE REAR WIPER SW IS OFF, AND THE REAR WIPER SW IS THEN TURNED IN THE OFF DIRECTION, WASHER LIQUID WILL ALSO SPRAY.

AND WASHER

SERVICE HINTS

T 4 TAILGATE CONTROL SW

2-3 : CONTINUITY WITH TAILGATE CONTROL SW AT DOWN SIDE
1-3 : CONTINUITY WITH TAILGATE CONTROL SW AT UP SIDE

C15 REAR WIPER AND WASHER SW [COMB. SW]

12-2 : CONTINUITY WITH REAR WIPER AND WASHER SW AT **WASHER** POSITION
10-2 : CONTINUITY WITH REAR WIPER AND WASHER SW AT **ON** POSITION

P12 POWER WINDOW RELAY

3-GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION
12-GROUND : ALWAYS APPROX. **12** VOLTS
14-GROUND : ALWAYS CONTINUITY
5-GROUND : APPROX. **12** VOLTS WITH BACK WINDOW AT **UP** OPERATION
15-GROUND : APPROX. **12** VOLTS WITH BACK WINDOW AT **DOWN** OPERATION
11-GROUND : CONTINUITY WITH IGNITION SW ON AND BACK WINDOW CONTROL SW AT **UP** POSITION
13-GROUND : CONTINUITY WITH IGNITION SW ON AND BACK WINDOW CONTROL SW AT **DOWN** POSITION
2-GROUND : CONTINUITY WITH TAILGATE CONTROL SW AT **UP** POSITION
10-GROUND : CONTINUITY WITH TAILGATE CONTROL SW AT **DOWN** POSITION

B 5 BACK WINDOW LOCK SW

10-7: OPEN WITH BACK WINDOW LOCK SW AT **LOCK** POSITION

B11 BACK WINDOW LIMIT SW

1-2 : CLOSED WITH BACK POWER WINDOW FULLY CLOSED

R19 REAR WIPER MOTOR

4, 6-5 : CONTINUITY WITH REAR WIPER RETRACTED
4-5 : CONTINUITY WITH REAR WIPER AT **RETURN** POSITION



POWER WINDOW (REAR), REAR WIPER

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
B 4	30	J 4	31	P12	33
B 5	30	J 5	31	R19	33
B11	30	J 6	31	T 4	33
B12	30	J 9	31	W 1	A 27 (5VZ-FE), 29 (3RZ-FE)
C15	30	J12	32		B 27 (5VZ-FE), 29 (3RZ-FE)
D11	30	J16	32		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	22	COWL WIRE AND DRIVER SIDE J/B (LOWER FINISH PANEL)
1C		
3A	24	COWL WIRE AND CENTER J/B (NEAR THE STEERING COLUMN TUBE)
3C		

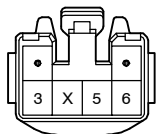
□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IE1	40	COWL WIRE AND FLOOR NO.2 WIRE (LEFT KICK PANEL)
BR1	42	BACK DOOR NO.1 WIRE AND FLOOR NO.2 WIRE (LEFT REAR SIDE OF ROOF)
BR2		
BS1	42	BACK DOOR NO.1 WIRE AND BACK DOOR NO.2 WIRE (BACK DOOR LEFT)
BS2		

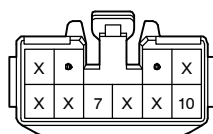
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	40	COWL SIDE PANEL LH
IF	40	COWL SIDE PANEL RH
BH	42	LEFT QUARTER PANEL INNER

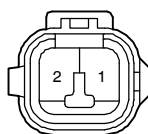
B 4



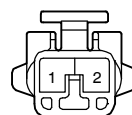
B 5 BLACK



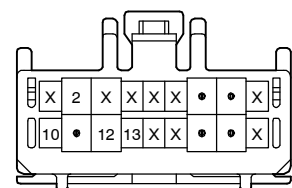
B11 WHITE



B12 GRAY



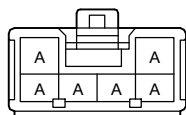
C15 BLACK



D11

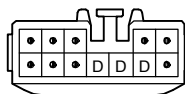


J 4, J 9



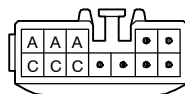
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J 5 BLACK



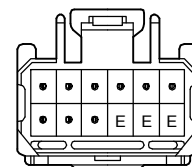
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J 6 BLACK



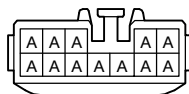
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J12 BLACK



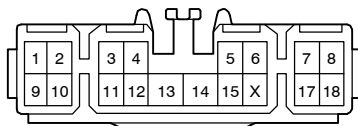
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J16 BLUE

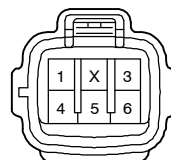


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P12



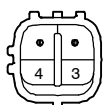
R19 BLACK



T 4 GRAY



(USA) **W 1** (A) DARK GRAY



(CANADA) **W 1** (B) BLACK

